

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: J. Okholm et al)	
Applicant's Ref: 6533/53656)	Examiner: Kerri M. Dyke
Serial No.: 10/027,499)	Group Art Unit: 2667
Filed: December 20, 2001)	
)	Date: September 28, 2006
Title: INTERFACE FACILITATING CONFIGURATION OF NETWORK RESOURCE UTILIZATION)	Confirmation No.: 2002
)	

AMENDMENT AND RESPONSE TO OFFICE ACTION

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Dear Sir:

In response to the Office Action dated June 28, 2006, please enter the following amendments and consider the following remarks.

Amendments to the claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/arguments begin on page 11 of this paper.

CLAIMS

Please amend the claims as follows and cancel claims 32-34 without prejudice.

1. (Currently amended) A method facilitating the configuration of parameters controlling utilization of a network resource, comprising the steps of:

monitoring utilization of a network resource with respect to a plurality of utilization classes;

displaying the most significant utilization classes based on a network statistic;
[[and,]]

facilitating association of a displayed utilization class with a network resource utilization control parameter operative to control utilization of the network resource, wherein facilitating association includes providing a user interface allowing for selection of a displayed utilization class and a desired network resource utilization control parameter; and

wherein displaying the most significant utilization classes are further based on a minimum threshold percentage of the network resource.

2. (Original) The method of claim 1 further comprising the step of:

facilitating selection of additional utilization classes not presented in the displaying step and association of control parameters to the additional utilization classes.

Claim 3 (Canceled)

4. (Original) The method of claim 2 wherein the facilitating step comprises the steps of

providing a user interface allowing for selection of a displayed utilization class and a desired control parameter; and

wherein the user interface allows for selection of additional utilization classes and configuration of desired allocations of the network resource for selected additional utilization classes.

5. (Original) The method of claim 1 further comprising the step of

upon selection by a user, associating a selected utilization class with control parameter selected by the user.

6. (Original) The method of claim 1 wherein the displaying step further comprises

providing a user interface that displays the most significant utilization classes based on a utilization statistic;

wherein the user interface allows for selection of a displayed utilization class and a desired control parameter.

7. (Original) The method of claim 6 wherein the user interface further allows for selection of additional utilization classes not presented in the displaying step and configuration of desired control parameters for selected additional utilization classes.

8. (Original) The method of claim 1 wherein the most significant utilization classes are displayed in an order relative to corresponding values of the network statistic.

9. (Original) The method of claim 1 wherein the most significant utilization classes are displayed in descending order relative to corresponding values of the network statistic.

10. (Original) The method of claim 1 wherein the most significant utilization classes are displayed in ascending order relative to corresponding values of the network statistic.

11. (Original) The method of claim 6 wherein the user interface displays the most significant utilization classes in an order relative to corresponding values of the network statistic.

12. (Original) The method of claim 6 wherein the user interface displays the most significant utilization classes in descending order relative to corresponding values of the network statistic.

13. (Original) The method of claim 6 wherein the user interface displays the most significant utilization classes in ascending order relative to corresponding values of the network statistic.

14. (Original) The method of claim 1 further comprising the steps of
providing a set of selectable network statistics;
receiving a selected utilization statistic from a user; and,
wherein the displaying step comprises
displaying the most significant utilization classes based on the selected network statistic.

Claim 15 (Canceled)

16. (Original) The method of claim 1 wherein the network statistic is a utilization statistic.

17. (Original) The method of claim 1 wherein the network statistic is computed over a given analysis interval; and wherein the method further comprises the steps of:

allowing for selection of an analysis interval.

18. (Currently amended) A method facilitating the configuration of bandwidth management parameters, comprising the steps of:

monitoring bandwidth utilization with respect to a plurality of traffic classes;

displaying the most significant traffic classes based on a network statistic;
[[and,]]

facilitating association of a displayed traffic class with a bandwidth utilization control parameter operative to control the bandwidth utilization, wherein facilitating association includes providing a user interface allowing for selection of a displayed bandwidth class and a desired bandwidth utilization control parameter; and

wherein displaying the most significant traffic classes are further based on a minimum threshold percentage of the bandwidth utilization.

19. (Original) The method of claim 18 further comprising the step of:

facilitating selection of additional traffic classes not presented in the displaying step and association of bandwidth utilization controls to the additional traffic classes.

20. (Previously presented) The method of claim 18 wherein each bandwidth control category maps to a set of bandwidth utilization controls.

21. (Original) The method of claim 18 wherein the bandwidth utilization control is implemented by an aggregate data flow bandwidth utilization control.

22. (Original) The method of claim 18 wherein the bandwidth utilization control is implemented by a per-flow bandwidth utilization control.

23. (Original) The method of claim 18 wherein the bandwidth utilization control is implemented by at least one aggregate data flow bandwidth utilization control and at least one per-flow bandwidth utilization control.

24. (Original) The method of claim 18 wherein the monitoring step further comprises the step of

automatically creating new traffic classes in response to data flows.

25. (Original) The method of claim 18 wherein the network statistic is computed over a given analysis interval; and wherein the method further comprises the steps of:

allowing for selection of an analysis interval.

26. (Currently amended) An apparatus allowing for the management of bandwidth utilization across an access link, comprising:

a traffic discovery engine operative to identify traffic classes corresponding to data flows traversing an access link; wherein the traffic discovery engine is further operative to measure bandwidth utilization across the access link with respect to a plurality of traffic classes in relation to at least one bandwidth utilization statistic;

a bandwidth control mechanism operative to enforce bandwidth utilization controls on data flows associated with corresponding traffic classes; and

a user interface module operative to display the most significant traffic classes based on a bandwidth utilization statistic; and wherein the user interface module facilitates association of a bandwidth utilization control parameter to a selected traffic class wherein the bandwidth utilization control parameter is operative to control the

bandwidth utilization; and wherein display of the most significant traffic classes are further based on a minimum threshold percentage of the bandwidth utilization.

27. (Original) The apparatus of claim 26 wherein the bandwidth utilization statistic is selectable by a user.

28. (Original) The apparatus of claim 26 wherein the bandwidth utilization statistic is computed over an analysis interval.

29. (Original) The apparatus of claim 28 wherein the analysis interval is selectable by a user.

30. (Original) The apparatus of claim 26 wherein the traffic discovery engine is further operative to create new traffic classes in response to data flows.

31. (Original) The apparatus of claim 26 wherein the user interface allows for the display of additional traffic classes.

Claims 32-34 (Canceled)

35. (Previously presented) The method of claim 1 wherein the facilitating step comprises the steps of

providing a user interface allowing for selection of a displayed utilization class and a desired parameter.

36. (Previously presented) The method of claim 35 wherein the network statistic is a utilization statistic.

37. (Previously presented) The method of claim 1 wherein the control parameter is one of a plurality of control parameters, and wherein the plurality of control parameters are hierarchically inter-related such that changing the control parameter of the displayed utilization class to a higher-ranked or a lower-ranked control parameter causes a corresponding increase or decrease of priority for the network resource.

38. (Previously presented) The method of claim 18 wherein the bandwidth utilization control is one of a plurality of bandwidth utilization controls, and wherein the plurality of bandwidth utilization controls are hierarchically inter-related such that changing the bandwidth utilization control of the displayed traffic class to a higher-ranked or a lower-ranked bandwidth utilization control causes a corresponding increase or decrease of priority for the bandwidth utilization.

39. (Previously presented) The apparatus of claim 26 wherein the bandwidth utilization control is one of a plurality of bandwidth utilization controls, and wherein the plurality of bandwidth utilization controls are hierarchically inter-related such that changing the bandwidth utilization control of the selected traffic class to a higher-ranked or a lower-ranked bandwidth utilization control causes a corresponding increase or decrease of priority for the bandwidth utilization.

REMARKS

Applicant thanks the Examiner for the careful review of this application. Claims 1, 18 and 26 were amended. No new matter was added. Claims 32-34 were canceled without prejudice and claims 3 and 15 were previously canceled without prejudice. Therefore, claims 1-2, 4-14, 16-31 and 35-39 remain pending in this application.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 1-2, 4-8, 10-11, 13-14, 16-31, 35 and 36 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Rakoshitz (U.S. Patent No. 6,816,903). Claims 9 and 12 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable in over Rakoshitz in view of MacGregor (U.S. Patent No. 5,396,621).

Rakoshitz apparently discloses a method and system for monitoring or profiling quality of service within one or more information sources in a network of computers. The method includes a step of providing a network of computers, each being coupled to each other to form a local area network. The network of computers has a firewall server coupled to the network of computers and a distributed traffic management tool coupled to the firewall server. The method also includes implementing traffic monitoring or profiling of incoming and outgoing information from one of the information sources.

MacGregor apparently discloses an apparatus and method for sorting of information in a computerized spreadsheet. The system provides for display of a graphical indication in the form of an icon indicative of the sort type, either by rows or by columns, which the data will be sorted in when a sort operation is performed.

Applicant has amended the allowable subject matter of claims 32-34 into independent claims 1, 18 and 26 respectfully. Due to this, Applicant respectfully

submits that all the pending claims are finally in condition for allowance and respectfully requests withdrawal of the rejections of the claims.

ALLOWABLE SUBJECT MATTER

Applicant thanks the Examiner for noting the presence of allowable subject matter in claims 32-34 and 37-39. As mentioned above, Applicant has folded the allowable subject matter of claims 32-34 into the independent claims. Therefore, all of the claims are now in condition for allowance.

CONCLUSION

Applicant believes that all pending claims are allowable and a Notice of Allowance is respectfully requested.

If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel at the number set out below.

Respectfully submitted,
LAW OFFICE OF MARK J. SPOLYAR

Dated: September 28, 2006

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